

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 10-242513

(43)Date of publication of application : 11.09.1998

(51)Int.Cl.

H01L 33/00

G09F 9/00

H04N 5/66

(21)Application number : 09-218149

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(22)Date of filing : 28.07.1997

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(30)Priority

Priority number : 08198585

Priority date : 29.07.1996

Priority country : JP

08245381

18.09.1996

JP

08359004

27.12.1996

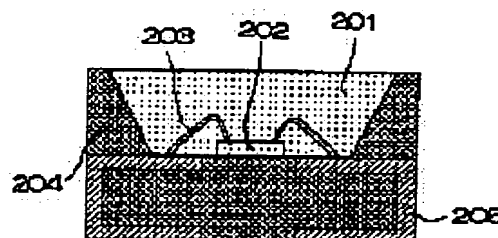
JP

(54) LIGHT EMITTING DIODE AND DISPLAY DEVICE USING THE SAME

(57)Abstract:

PROBLEM TO BE SOLVED: To reduce the luminous efficiency deterioration and color slurring of a light emitting diode even when the diode is used for a long time under a high-luminance condition, by respectively constituting the LED chip and photoluminescent phosphor of the diode of a nitride compound semiconductor and cerium-reactivated yttrium aluminum garnet phosphor.

SOLUTION: An LED chip 202 using a gallium nitride semiconductor is fixed in an enclosure 204 of a chip type LED with an epoxy resin, etc. An epoxy resin in which a $(RE1-xSmx)3(Al_yGa_{1-y})5O_{12}:Ce$ phosphor is scattered is uniformly cured as a molded member 201 which protects the LED chip 202, conductive wires, etc., from the external stresses. The cerium-reactivated yttrium aluminum garnet phosphor is scattered in the epoxy resin as a photoluminescent phosphor.



LEGAL STATUS

[Date of request for examination]

11.10.1997

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

2927279

[Date of registration]

14.05.1999

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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